

Name _____

Lesson 4.4

Line Graphs

Essential Question How can you use a line graph to display and analyze real-world data?

COMMON CORE STANDARD CC.5.G.2

Graph points on the coordinate plane to solve real-world and mathematical problems.

UNLOCK the Problem REAL WORLD

A **line graph** is a graph that uses line segments to show how data changes over time. The series of numbers placed at fixed distances that label the graph are the graph's **scale**. The **intervals**, or difference between the values on the scale, should be equal.



Graph the data. Use the graph to determine the times between which the greatest temperature change occurred.

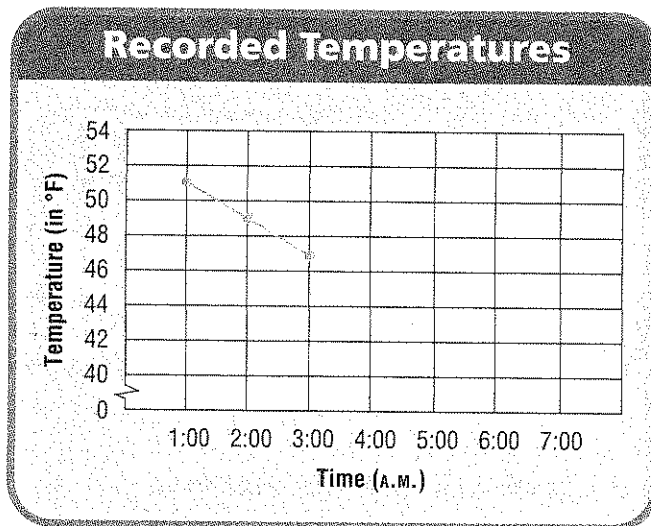
Recorded Temperatures							
Time (A.M.)	1:00	2:00	3:00	4:00	5:00	6:00	7:00
Temperature (in °F)	51	49	47	44	45	44	46

- Write related number pairs of data as ordered pairs.

(1:00, 51) (_____, _____)
 (_____, _____) (_____, _____)
 (_____, _____) (_____, _____)
 (_____, _____)

STEP 1 For the vertical axis, choose a scale and an interval that are appropriate for the data. You can show a break in the scale between 0 and 40, since there are no temperatures between 0°F and 44°F.

STEP 2 For the horizontal axis, write the times of day. Write a title for the graph and name each axis. Then graph the ordered pairs. Complete the graph by connecting the points with line segments.



Look at each line segment in the graph. Find the line segment that shows the greatest change in temperature between two consecutive points.

The greatest temperature change occurred between _____ and _____.

Try This! Jill used a rain gauge to collect data on the total rainfall during 6 days at her home in Miami. She read the amount of rain collected in the rain gauge each day and did not pour it out. Her data is shown in the table. Make a line graph to display Jill's data.

STEP 1 Write related pairs of data as ordered pairs.

(Mon, 2) (,) (,)

(,) (,) (,)

STEP 2 Choose a scale and an interval for the data.

STEP 3 Label the horizontal and vertical axes. Write a title for the graph. Graph the ordered pairs. Connect the points with line segments.

Rainfall Collected	
Day	Rainfall (in inches)
Mon	2
Tue	2
Wed	3
Thu	6
Fri	8
Sat	9



Math Talk

MATHEMATICAL PRACTICES

Explain how you could use the graph to identify the two readings between which it did not rain.

Use the graph to answer the questions.

1. On which day was the total rainfall recorded the greatest?

2. On which day did Jill record the greatest increase in rainfall collected from the previous day?
